

hermaphroditism, of male and female flowers<sup>3</sup>; Bessey of the female flower of Gymnosperms<sup>4</sup>; Luerssen of the male and female organs, of male and female flowers (die Geschlechtsorgane, männliche Blüthe, weibliche Blüthe, etc.)<sup>5</sup>; and one can hardly find an author of note who does not thus perpetuate in his terminology notions which he must certainly have abandoned and desires to guard others against adopting.

Now in this case there seems to be no excuse for such looseness. If biology is to be an exact science it should use its terms as the chemist or physician does. Acids must not be called bases, magnetism must not be called heat, electricity must not be called thermodynamics. Let it be remembered that reproductive cells are of two kinds, those formed by division of an existing plant-body, namely spores, and those formed by fusion of gametes, namely eggs. A plant which produces pollen-grains, embryo-sacs, conidia or any kind of spore is a spore-bearing plant or sporophyte (in the widest sense); a plant which produces gametes (whether they be isogametes as in *Ulothrix*, *Mucor*, *Syncephalis*, or spermatozoids and eggs—both or either) is a gamete-producing plant or gametophyte. We may then use our terms correctly as follows:

*Gametophyte group.*

Hermaphrodite.

Unisexual, bisexual.

Male, female.

Spermatozoid, egg.

Fertilised egg.

etc.

*Sporophyte group.*

Monoclinous, diclinous.

Monoecious, dioecious.

Staminate, pistillate.

Microspore, macrospore.

Macrosporophyll, microsporophyll.

etc.

We may speak of hermaphrodite, unisexual, male prothallia of ferns, if we like, but we should certainly say monoclinous, monoecious, microsporophyllous flowers. The general adoption of some uniformity in the applying of names to flowers and parts of flowers would not only make all discussions of them clearer but would not do learners the injustice of forcing upon them the very ideas which it is deemed important they should not get.—CONWAY MACMILLAN, *Minneapolis, Minn.*

Curious case of germination in *Citrus decumana*.—I received a few days ago from Prof. Le Baron R. Briggs, of Harvard University, half of a fruit of *Citrus decumana* on the cut surface of which was a seed which had begun to germinate. The hypocotyl was, at the time, a

<sup>3</sup>Outlines of Classification and Special Morphology, Eng. tran. p. 347.

<sup>4</sup>Botany, 5th edition, p. 397.

<sup>5</sup>Systematische Botanik ii, 193.

quarter of an inch long, and the well formed cotyledons had already separated, showing the plumule which had just begun to expand. What is to be noted as curious in this case, is the fact that the seed had germinated in the intact fruit, and the cotyledons and plumule were dark-green in color. Normal germination of seeds under such circumstances is so rare that one naturally is lead to suspect that some mischievous person had inserted a germinating seed into the fruit after it had been cut open. This possibility is excluded by the positive statement of Prof. Briggs, that the fruit was brought to his table perfectly intact, that he saw it cut open, and at once noticed the green seedling which was in the center of the fruit, just where the cut was made, and escaped injury except that a small part of one of the cotyledons was cut away by the knife. The testimony is so positive that suspicion of deception is excluded, and we must believe that the seed actually germinated and bore green cotyledons and plumule while enclosed in the sound fruit.—W. G. FARLOW, *Cambridge, Mass.*

*Coursetia axillaris*, n. sp.—Shrub or small tree (?), the younger parts pubescent : leaves small, odd-pinnate; leaflets 3 to 5 pairs, reticulated, almost glabrous above, somewhat pubescent below (as is also the rhachis), 3 to 8 mm. long, obtuse, the lower pair orbicular, the upper pairs obovate : flowers axillary, on peduncles 4 to 10 mm. long : calyx pubescent, 4 mm. long, with 5 broad equal teeth (the 2 upper ones high connate): petals about equal in length; vexillum very broad (12 mm.) and reflexed; wings oblong: vexillary stamen free; the others equal: style slender, very hairy above the middle: ovary 2 to 8-seeded: pod 2-valved, glabrous, 3.5 cm. long, with lobed margins and on a broad stipe.—San Diego, Texas, April, 1891, (*G. C. Nealley*, 16). This plant is interesting as being an intermediate form between two closely related genera, *Coursetia* and *Sabinea*. While the general characters are those of *Coursetia*, the inflorescence is that of *Sabinea*. In habit and pods it is nearest *C. glandulosa* of Arizona and Mexico.—JOHN M. COULTER, *Crawfordsville, Ind.*

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## EDITORIAL.

A MOVEMENT has begun in Indiana, which may lead to good results. A teacher's "reading-circle" has been organized for some years, containing, it is claimed, 30,000 members. Different subjects are selected each year, and an executive committee directs the proper books to be read. It has been found very profitable to publishers to secure the